

REMARKS

Claims 1-10 are all the claims pending in the application.

Applicant thanks the Examiner for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority document was received.

Applicant also thanks the Examiner for initialing the references listed on the PTO-1449 forms submitted with the Information Disclosure Statements filed on July 12, 2000, July 3, 2003 and August 7, 2003.

I. Specification

The Examiner has objected to the specification because of informalities on page 19 of the specification. Applicant has amended the specification in accordance with the Examiner's suggestions. Accordingly, Applicant respectfully requests that the objection be reconsidered and withdrawn.

II. Claim Objections

The Examiner objects to claims 1-10 due to informalities. In particular, the Examiner suggests that the limitation in claim 1 which sets forth "the weighted and averaged correlation signals" be changed to --the averaged, weighted and added correlation signals.--

Applicant hereby amends the phrase "the weighted and averaged correlation signals" in line 20 of claim 1 to recite "the weighted, added and averaged correlation signals" in order to

provide proper antecedent basis. Based on the foregoing, Applicant respectfully requests that the objection be reconsidered and withdrawn.

III. Claim Rejections under 35 U.S.C. § 112, first paragraph

Claims 7-10 are rejected under 35 U.S.C. § 112, first paragraph for containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, the Examiner asserts that it does not appear as though the specification or figures teaches a means for averaging the power of correlated signals. Applicant respectfully disagrees.

The test for resolving the issue of enablement is whether one reasonably skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. *See, e.g., Northern Telecom v. Datapoint* 15 USPQ2d 1321, 1328-30 (Fed. Cir. 1990).

As disclosed by Applicant in an illustrative embodiment of the present invention, a plurality of memories 201 are provided which store the correlations calculated by the correlation processors 104 (see Fig. 2). The multipliers 202 multiple the correlations read from the memories 201 by respective weighting coefficients and the adder 203 adds the weighted correlations to each other.

Further, as shown in Fig. 2, a power calculator 204 is provided that calculates the power of the signal output from the adder 203, wherein the output of power calculator 204 is input to

averaging unit 205. Thus, as the specification and figures describe a calculated power signal that is output from power calculator 204 and input to averaging unit 205, Applicant submits that such description would enable one of ordinary skill in the art to make and/or use the claimed feature of a means for averaging the power of correlated signals.

Furthermore, Applicant notes that an inventor is not required to explain every detail since he is speaking to those skilled in the art. "What is conventional knowledge will be read into the disclosure." *In re Howarth*, 210 USPQ 689, 691-92 (CCPA 1981).

Based on the foregoing, Applicant respectfully submits that the specification enables one skilled in the art to make and/or use the claimed invention. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. § 112, first paragraph be reconsidered and withdrawn.

IV. Claim Rejections under 35 U.S.C. § 103(a)

A. Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sawahashi et al. (U.S. Patent No. 6,069,912). Applicant respectfully traverses this rejection on the following basis.

Claim 1 recites the feature of a correlation peak detector for detecting at least one peak from the weighted and averaged correlation signals output as delay profiles from a weighted-mean-value processor, and outputting a reception level and reception timing corresponding to the detected peak as a reception level timing of a reception path. Applicant submits that at least this feature of the claimed combination is neither taught nor suggested by the cited prior art.

The Examiner asserts that the phase fluctuation estimator 906 of Sawahashi corresponds to the correlation peak detector as set forth in claim 1. In particular, the Examiner asserts that the phase fluctuation estimator 906 inherently includes a peak detector because it is known that the received phase is determined by the peak of correlation. Applicant respectfully disagrees.

Contrary to the assertion of the Examiner, a phase fluctuation estimator does not inherently include a peak detector for determining the received phase. Indeed, Sawahashi specifically discloses that the phase fluctuation estimator estimates a received phase of the fading received waves using pilot symbols PS of a known pattern which are periodically inserted into a transmitted frame (see col. 8, lines 22-27). Further, Sawahashi discloses that the phase fluctuation estimator estimates received phase fluctuations by interpolating the received phase of the pilot symbols PS at both sides of the information symbols, thereby compensating for the received phase fluctuations by a phase fluctuation compensator (see col. 8, lines 28-34).

Based on the foregoing, it is clear that a peak detector is not inherently included in the phase fluctuation estimator of Sawahashi when estimating a received phase. As discussed above, Sawahashi utilizes pilot symbols PS of a known pattern that are periodically inserted into a transmitted frame in order to determine phase fluctuations.

In addition, Applicant submits that the question of whether a claim limitation is “inherent” in a prior art reference is a factual issue. *See Continental Can Co. U.S.A., Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). Although extrinsic evidence may be consulted regarding an asserted inherent characteristic, “[s]uch evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that

Amendment Under 37 C.F.R. 1.111
U.S. Application No.: 09/614,592

it would be so recognized by persons of ordinary skill.” *Id.* at 1268 (emphasis added).

Moreover, inherency “may not be established by probabilities or possibilities.” *Id.* at 1269 (emphasis added). Applicant respectfully submits that the Examiner has not come forward with any factual basis as to why the claimed feature in question must necessarily be present in Sawahashi.

Furthermore, the Examiner appears to be ignoring certain features set forth in claim 1 regarding the claimed peak detector. For example, claim 1 also sets forth a peak detector for outputting a reception level and reception timing corresponding to the detected peak as a reception level and reception timing of a reception path. The Examiner, however, has not addressed this feature of claim 1.

Based on the foregoing, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 1.

B. Claims 7 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sawahashi in view of Dobbins et al. (U.S. Patent No. 5,730,272).

Claims 7 and 9 depend from claim 1 and therefore incorporate all of the features thereof. Applicant submits that Dobbins fails to cure the deficiencies of Sawahashi as discussed above regarding claim 1. Accordingly, Applicant submits that claims 7 and 9 are patentable at least by virtue of their dependency.

Amendment Under 37 C.F.R. 1.111
U.S. Application No.: 09/614,592

V. Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 2-6 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. Applicant submits that base claim 1 is patentable for the reasons discussed above and, therefore, Applicant has not rewritten claims 2-6 in independent form.

VI. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



Kenneth W. Fields
Registration No. 52,430

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: January 2, 2004